

**OIL AND GREASE****"n-HEXANE EXTRACTABLE MATERIAL (HEM) FOR SLUDGE, SEDIMENT, AND SOLID SAMPLES"****EPA 9071B REVISION 2 APRIL 1998****Page 1 of 2**

Facility Name: \_\_\_\_\_ VELAP ID: \_\_\_\_\_

Assessor Name: \_\_\_\_\_ Analyst Name: \_\_\_\_\_ Inspection Date: \_\_\_\_\_

**Relevant Aspect of Standards****Method  
Reference****Y****N****N/A****Comments**

Records Examined: SOP Number/ Revision/ Date \_\_\_\_\_ Analyst: \_\_\_\_\_

Sample ID: \_\_\_\_\_ Date of Sample Preparation: \_\_\_\_\_ Date of Analysis: \_\_\_\_\_

Were solvents, reagents, glassware, and other sample-processing hardware demonstrated to be free from interferences by the analysis of a method blank?

4.2

Was a method blank analyzed at least once per analytical batch or with every 20 samples, whichever was more frequent?

9.2

Were reagent-grade chemicals used in all tests?

7.1

Was the sodium sulfate (Na<sub>2</sub>SO<sub>4</sub>) purified by heating at 400°C for 4 hours **OR** by precleaning with methylene chloride?

7.5

If methylene chloride was used to preclean sodium sulfate, did the method blank demonstrate that the methylene chloride was free from interferences?

7.5

Was prepared sodium sulfate stored in a tightly sealed glass container until used?

7.5

If samples were not acidified at collection, was the laboratory aware, so that unacidified samples could be acidified prior to analysis?

8.2

Was a matrix duplicate analyzed at least once per analytical batch or with every 20 samples, whichever was more frequent?

9.3

Was a matrix spike analyzed at least once per analytical batch or with every 20 samples, whichever was more frequent?

9.3

Were scale calibration measurements within ±10% of the expected mass measurements?

10.2

When HEM was reported on a dry-weight basis, was dry weight of a sample aliquot determined by drying a separate sample aliquot in an oven overnight at 105°C?

11.1.3

When it was necessary to report HEM on a dry-weight basis, was a sample aliquot used to determine dry weight that was separate from the sample aliquot used to measure HEM?

11.1.1

Notes/ Comments:

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Relevant Aspect of Standards	Method Reference	Y	N	N/A	Comments
<b>Solid/Waste Sample Preparation</b>					
If samples were not acidified to a pH<2 at the time of collection, were samples acidified to pH<2 with HCl prior to analysis?	11.2.1.2				
Were aliquots of sample stirred into a paste with Mg <sub>2</sub> SO <sub>4</sub> • H <sub>2</sub> O?	11.2.1.3				
After being allowing to solidify for 15-30 minutes, were pastes ground to a fine powder?	11.2.1.5				
<b>Sediment/Soil Sample Preparation</b>					
Was any water decanted from sample and were any foreign objects (sticks, leaves, rocks) removed from sample?	11.2.2.1				
Were aliquots of sample stirred into a paste with anhydrous Na <sub>2</sub> SO <sub>4</sub> ?	11.2.1.3 11.2.2.2				
After being allowing to solidify for 15-30 minutes, were pastes ground to a fine powder?	11.2.1.5 11.2.2.2				
<b>Extraction</b>					
Were samples extracted with hexane on a Soxhlet apparatus set to cycle at a rate of 20 cycles/hour for 4 hours?	11.3.1				
Was a boiling flask dried at 105-115°C for a minimum of 2 hours, then cooled in a desiccator, and weighed on a calibrated balance?	11.3.2.1 11.3.2.2 11.3.2.3				
Was the extract filtered through grease-free cotton into the boiling flask prepared as above?	11.3.3				
Was the hexane then distilled from the boiling flask in less than 30 minutes?	11.3.5				
Was the boiling flask then cooled in a desiccator before a final weight was recorded?	11.3.6				
Notes/ Comments:					